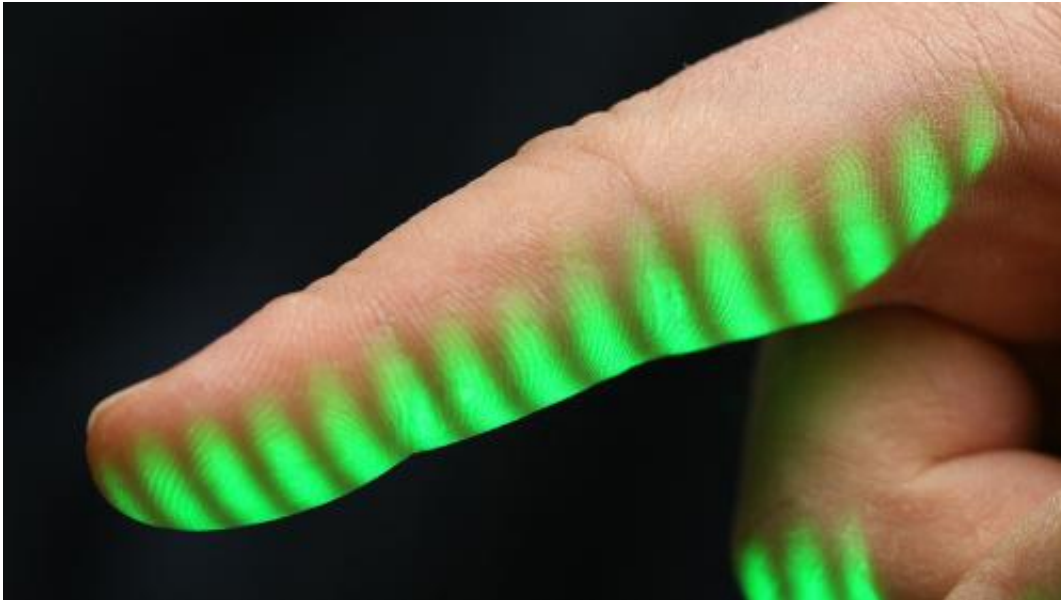


Video: High-resolution scanning in three dimensions

March 12 2014, by Keith Hautala And Julie Martinez



Larry Hassebrook is working on new ways of looking at things.

A professor of electrical and computer engineering at the University of Kentucky, and a faculty member of the Vis Center, Hassebrook's research is focused in the area of three-dimensional [data acquisition](#) and [pattern recognition](#). One technique he uses frequently, called structured light illumination, uses projected patterns of stripes to create three-dimensional computer models.

"If you project patterns of light, kind of like a Venetian blind, onto an object and you look at it from a different angle, then you'll see those stripes become crooked," Hassebrook said. "That 'crookedness,' or distortion, we can actually mathematically convert to a three-dimensional surface."

Hassebrook's research has been used for finger, palm and full-hand three-dimensional scans for security and forensic applications. He also works closely with archaeologists to scan objects in remote environments, such as in the jungle or underwater. These include petroglyphs or sunken artifacts.

Provided by University of Kentucky

Citation: Video: High-resolution scanning in three dimensions (2014, March 12) retrieved 4 April 2024 from <https://phys.org/news/2014-03-video-high-resolution-scanning-dimensions.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--